

Higher Order Thinking Skills

Primary 5

Lesson 4:

Area & Perimeter (I)

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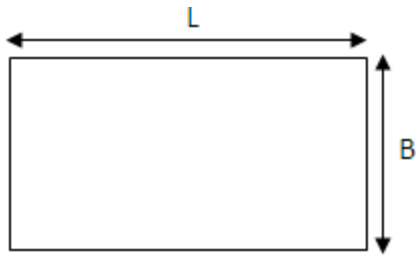
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LESSON 4 Area & Perimeter (I)

Rectangle, Square and Triangle

Formula:

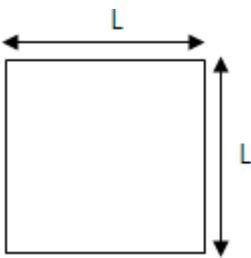
a) RECTANGLE:



Area =

Perimeter =

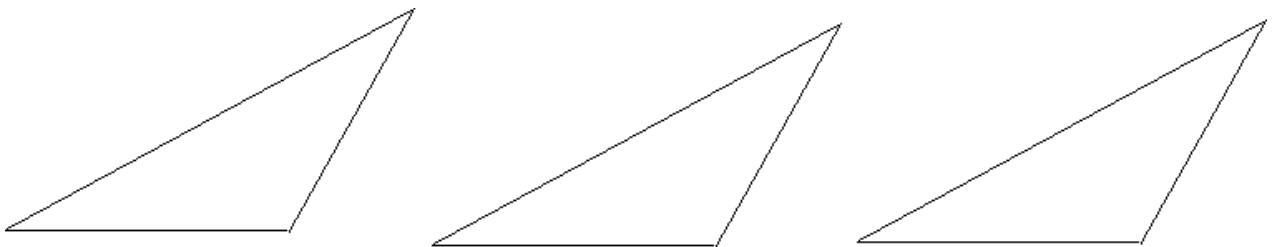
b) SQUARE:



Area =

Perimeter =

c) TRIANGLE



Area =

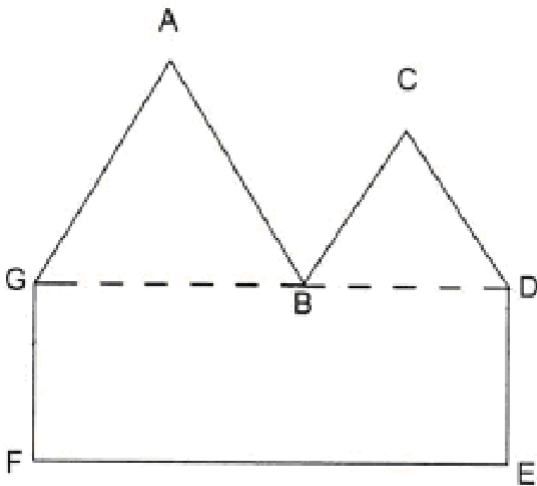
Perimeter =

GUIDED EXAMPLE 1

Visualisation

The figure is made up of a rectangle and two equilateral triangles.
The area of the rectangle DEFG is 105 cm^2 and its perimeter is 44 cm .
What is the perimeter of the figure?

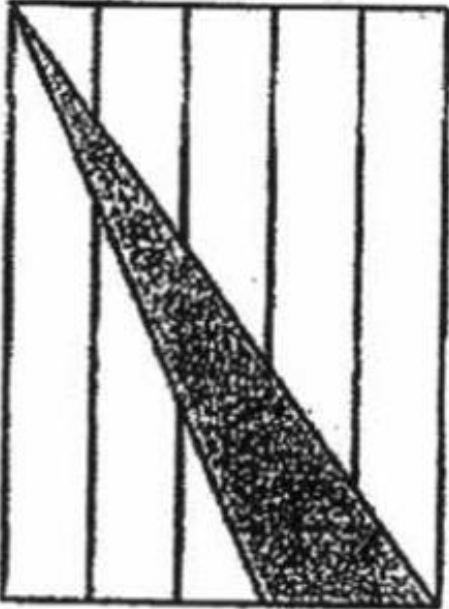
(Pei Tong Pri/ SA1/Q42)



GUIDED EXAMPLE 2

Rearrangement of Parts

The figure below is made up of 5 identical rectangles.
What fraction of the figure is shaded?



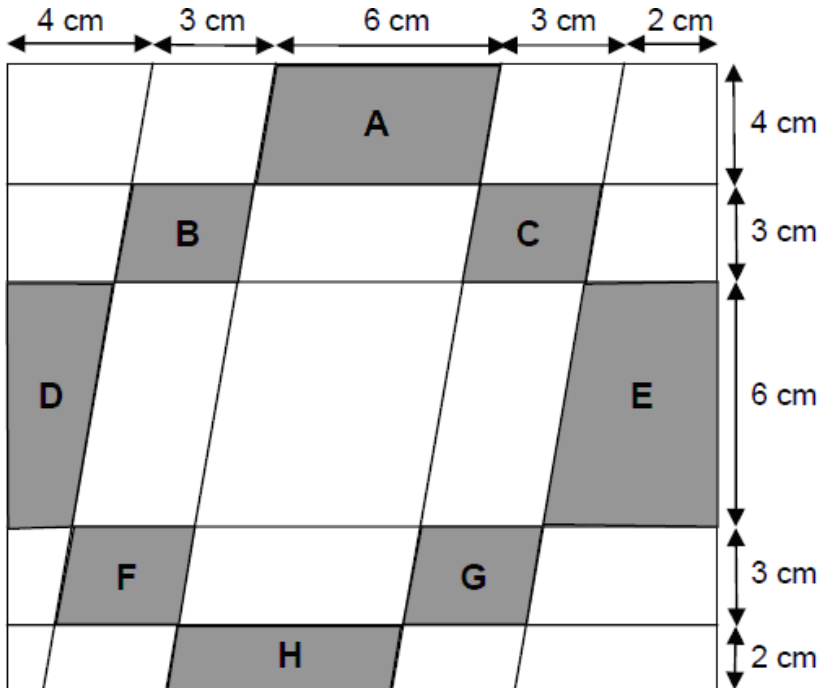
GUIDED EXAMPLE 3

Rearrangement of Parts

The figure below is not drawn to scale.

What fraction of the figure is the total area of the shaded regions A, B, C, D, E, F, G and H?

(Rosyth Pri/Prelim/Q44)

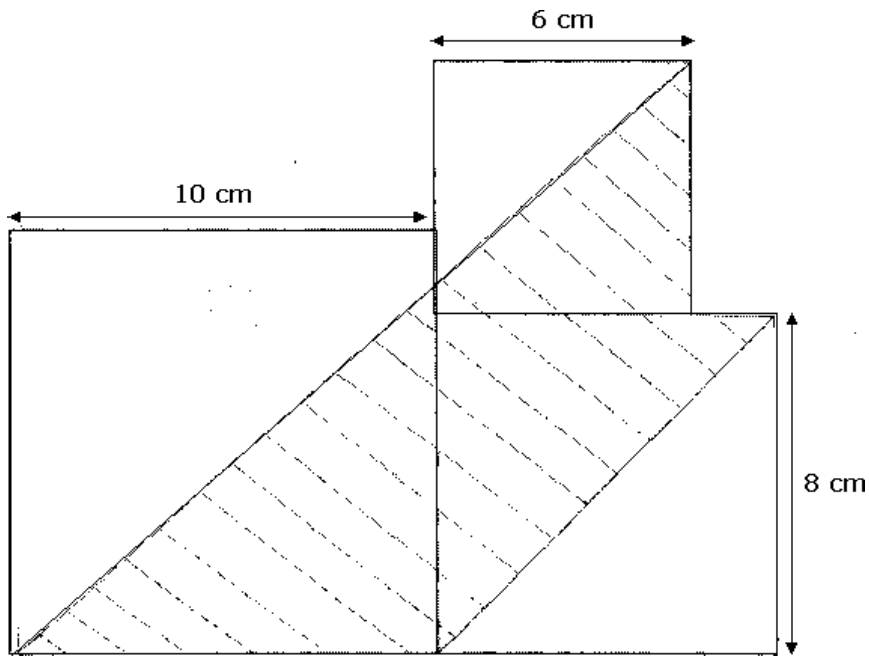


GUIDED EXAMPLE 4

Drawing Lines

The figure below, not drawn to scale, is made up of 3 squares.

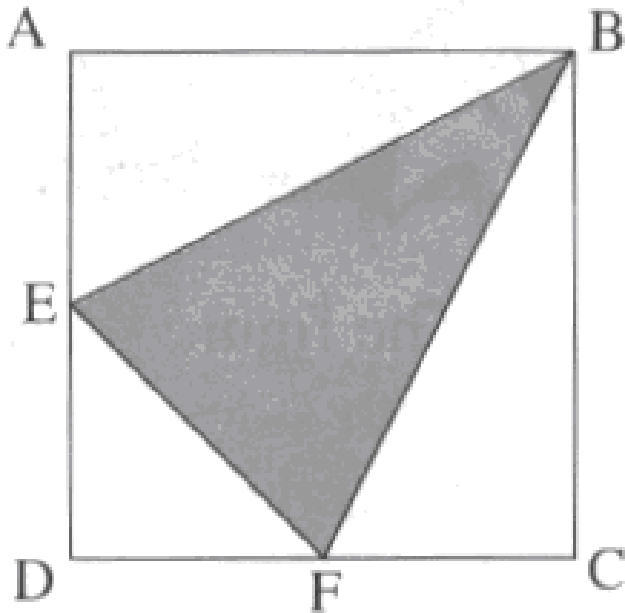
- (a) Find the area of the shaded part.
- (b) What fraction of the figure is shaded?



GUIDED EXAMPLE 5

Rearrange of Parts + Drawing of line

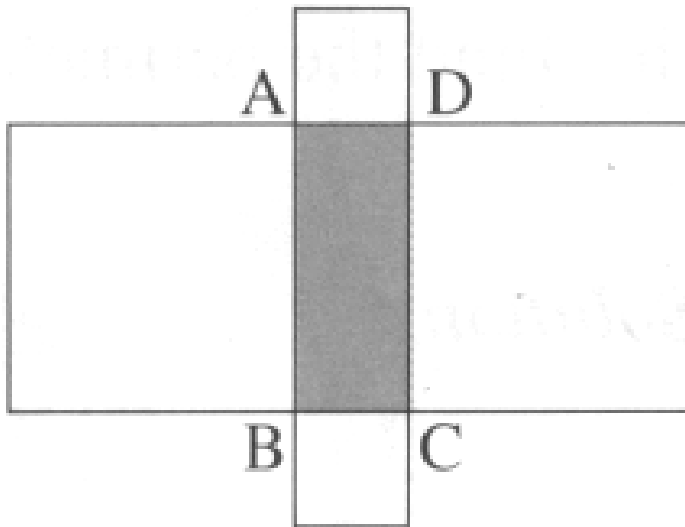
ABCD is a square of area 104 cm^2 .
E and F are the midpoints of AD and DC.
Find the area of the shaded triangle.



GUIDED EXAMPLE 6

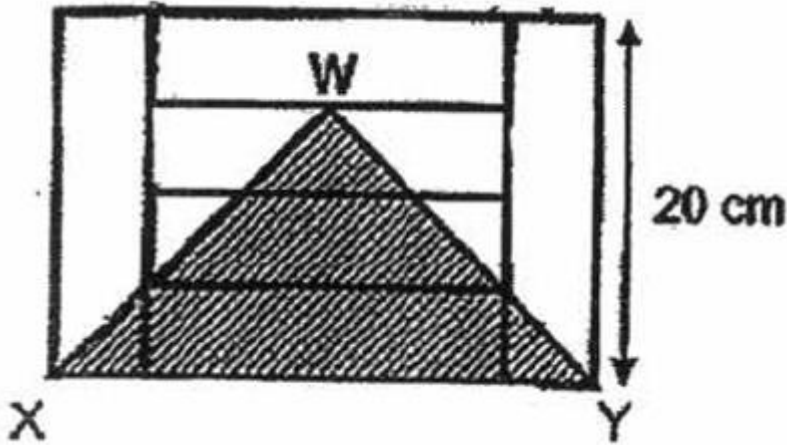
Rearrange of Parts + Drawing of line

The figure below shows a shaded rectangle ABCD with squares constructed on each of its side. The perimeter of the shaded rectangle is 30 cm. The total area of the four squares is 160 cm^2 , find the area of the shaded rectangle ABCD.

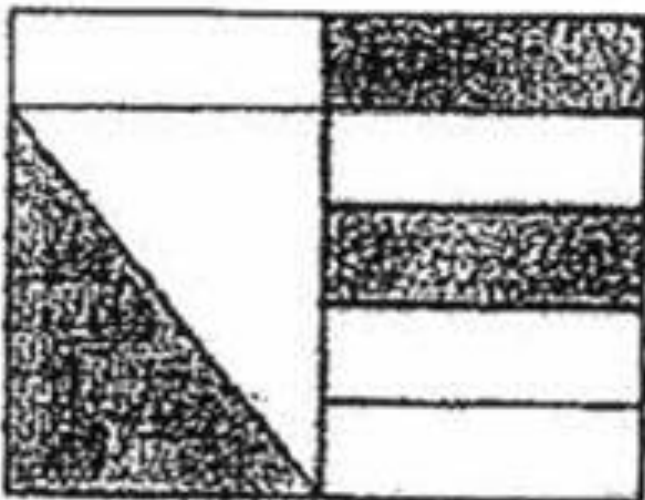


BUILD YOUR UNDERSTANDING

- 1a) The figure below is made up of 6 identical rectangles of length 20 cm. Find the area of the shaded triangle WXY.

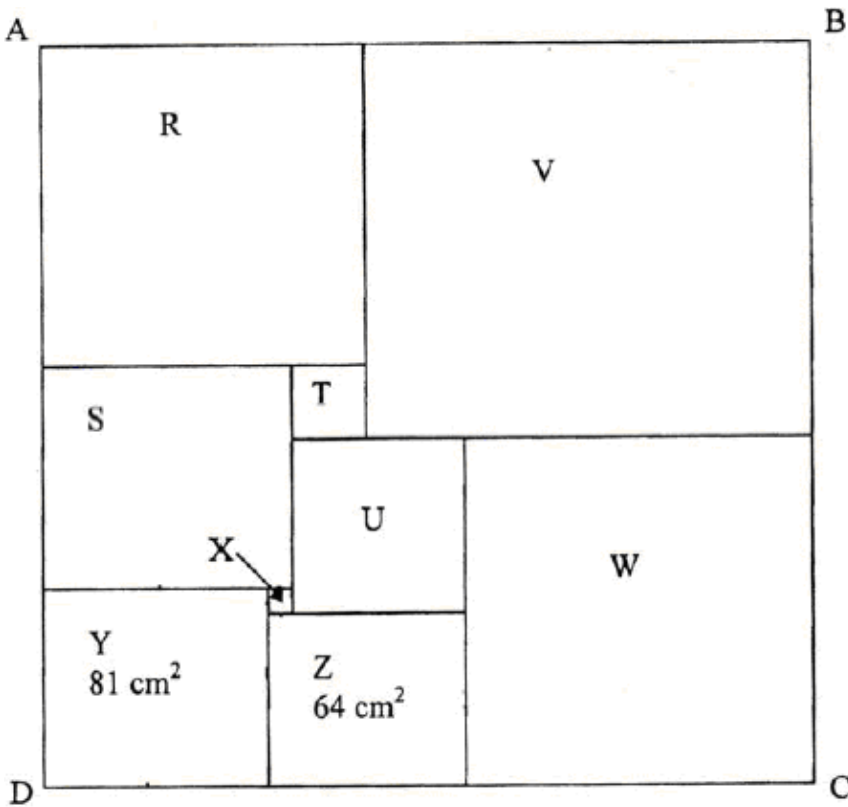


- b) The figure below is made up of 2 similar triangles and 6 similar rectangles. What is the ratio of the unshaded part to the whole figure?

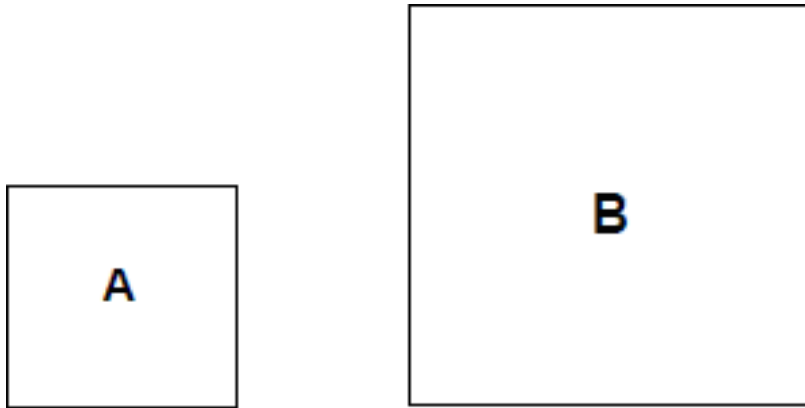


2. The figure shows a rectangle, ABCD.
 It is made up of 9 squares of different sizes.
 The area of square Y is 81 cm^2
 and the area of the square Z is 64 cm^2 .
- a) What is the length of each side of square W?
- b) What is the area of square T?

(Poi Ching Pri/SA 1/Q42)

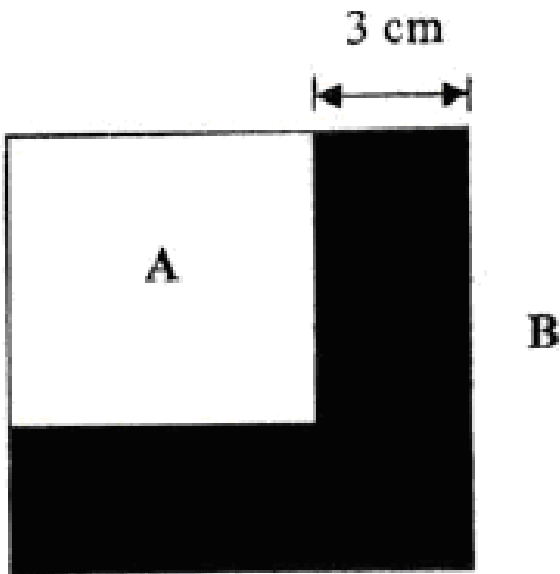


3. Figures A and B are both squares.



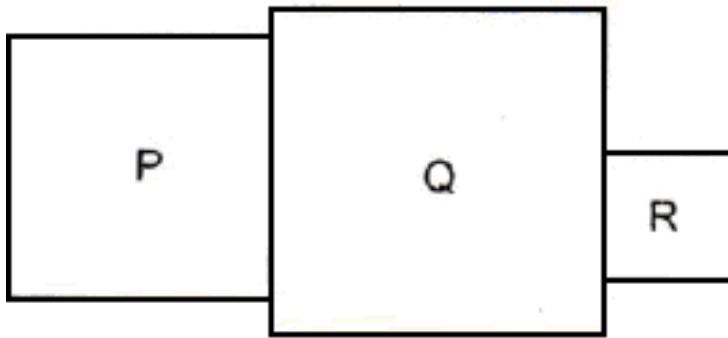
When Square A is placed over Square B as shown below, the shaded region has an area of 51 cm^2 .
What is the perimeter of the shaded region?

(Holy Innocents' Pri/Prelim/Q42)



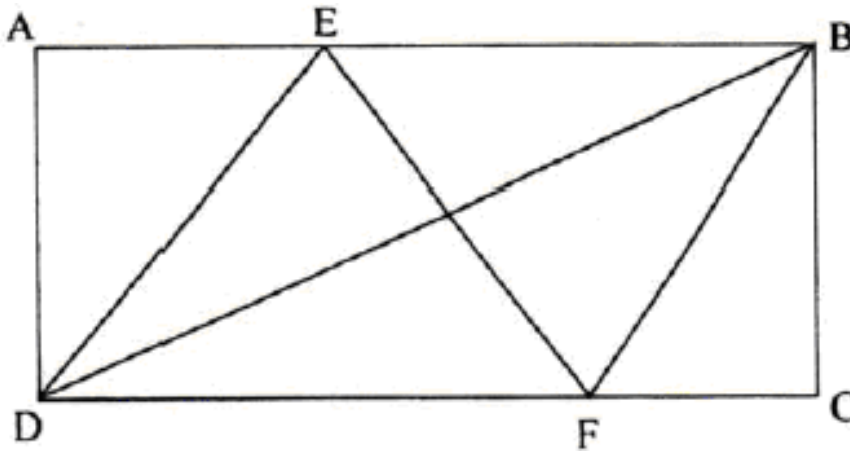
4. The figure is made up of 3 squares, P, Q and R, of different sizes.
The side of each square is a whole number.
The area of R is $\frac{1}{4}$ that of the area of P.
The total area of the figure is 161 cm^2 .
Find the perimeter of the figure.

(Pei Chun Public Sch/ Prelim/Q42)



5. In the figure, ABCD is a rectangle with an area of 816 cm^2 .
Given that the area of triangle DEF is 356 cm^2 ,
find the area of triangle BCF.

(St Andrew Junior/Prelim/Q31)



- 6. The side of each square grid is 2 cm.
Find the area of the shaded region.

